Claims

1. A process for producing an N-aryl-2,2,2-trifluoroacetimidoyl chloride represented by Formula (2):

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wherein R is an aryl group optionally having one substituent, the process comprising the step of reacting in an organic solvent a tertiary amine, a 2,2,2-trifluoro-N-arylacetamide represented by Formula (1):

$$R \stackrel{\mathsf{H}}{\longrightarrow} CF_3$$
 (1)

- wherein R is as defined above, and at least one member selected from the group consisting of phosphorus oxychloride and diphenyl chlorophosphate.
- 2. The process according to claim 1, wherein R is a phenyl, methylphenyl, methoxyphenyl, fluorophenyl, chlorophenyl, bromophenyl, iodophenyl, or naphthyl group.
 - 3. The process according to claim 1, wherein the tertiary amine is triethylamine.

4. A process for producing a 1-aryl-5- (trifluoromethyl)-1*H*-tetrazole represented by Formula (4):

wherein R is an aryl group optionally having one substituent, the process comprising the step of reacting in an aromatic hydrocarbon solvent, in the presence of an amine salt, an N-aryl-2,2,2-trifluoroacetimidoyl chloride represented by

Formula (2):

$$R \stackrel{\mathsf{N}}{\longrightarrow} CF_3$$
 (2)

wherein R is as defined above, and an azide represented by Formula (3):

$$M(N_3)_n \tag{3}$$

wherein M is an alkali metal or alkaline-earth metal, and n is 1 or 2.

- 5. The process according to claim 4, wherein R is a phenyl, methylphenyl, methoxyphenyl, fluorophenyl, chlorophenyl, bromophenyl, iodophenyl, or naphthyl group.
- 6. The process according to claim 4, wherein the azide 15 is sodium azide.
 - 7. The process according to claim 4, wherein the amine salt is triethylamine hydrochloride.
- 8. The process according to claim 4, wherein the aromatic hydrocarbon solvent is at least one member selected from the group consisting of toluene and xylene.